

## Amended claims

CLAIMS

1. Vehicle having a front part, a rear part and a longitudinal axis (1a), and comprising:

- a passenger compartment (8) provided with seats (7) located at the rear of the passenger compartment;

5       - a vehicle structure (72), with respect to which at least two rigid parts (3, 4, 5) of a retractable roof are free to move, respectively a first, front part (3, 4) and a second, rear part (5), said rigid roof parts being free to move between an extended position reached at the end of a  
10       forwards movement, and in which said parts cover the passenger compartment and are substantially in line one behind the other, and a folded position reached at the end of a rearwards movement and in which said parts are offset from each other and retracted into a storage space (9)  
15       located behind the seats (7);

- and an add-on modular roof assembly (1) added as a single part onto the vehicle structure, said assembly comprising:

20       \* the retractable roof and its moving parts (3), (4), (5);

      \* a retractable roof support body (10) connected to the vehicle structure (72);

      - and a roof parts movement mechanism (12, 13, 40, 50) connected to said roof parts and supported on the support  
25       body (10) for moving the roof parts with respect to the roof opening, between their extended and folded positions,

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once the modular roof assembly is positioned inside the vehicle,

characterized in that:

- 5       - the modular roof assembly (1) is positioned inside the vehicle using guiding housing and locking elements (76, 78, 73, 75) provided partly on the vehicle structure (72) and partly on the support frame (10) such that the support frame (10) is positioned facing the guiding housing elements of the vehicle structure, and
- 10       - the vehicle structure (72) locally defines a roof panel (79) provided with said opening (77) closeable by means of the retractable roof, said structure being adapted to house a sealed sliding movement of the roof parts along two fixed, lateral members (81, 83) disposed along the
- 15       opening.

2. Vehicle according to claim 1 characterized in that the roof parts (3, 4, 5) occupy a substantially vertical position, adjacent to each other, when in their folded

20       position.

3. Vehicle according to claim 1 or 2, characterized in that one of the guiding housing and locking elements provided on the vehicle structure (72) and the support body

25       of the modular roof assembly comprises two cradles (75) aligned perpendicular to the longitudinal axis (1a) of the vehicle, and the other of said guiding housing and locking elements and said support body comprises two trunnions (73) adapted to fit into the cradles, to enable pivoting of said

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modular roof assembly (1) with respect to the vehicle structure (72).

4. Vehicle according to claim 3 characterized in that:

5       - the seats (7) of the vehicle are installed on the structure so that they can be tilted forwards, and

      - the vehicle further includes means (100, 101, 103) of actuating the modular roof assembly, said actuation means comprising a control (100) to tilt the modular roof  
10 assembly (1) between said folded position of the roof parts, when they are arranged adjacent to each other, substantially vertically behind the seats, and a position tilted forwards in the passenger compartment, when said seats are already tilted forwards;

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5. Vehicle according to one of the previous claims, characterized in that:

      - the support body (10, 10a) and the movement mechanism (12, 13, 40, 50) for the roof parts define two  
20 blocks located laterally on each side of the longitudinal axis (1a) of the vehicle to clear an available space between said blocks;

      - the roof storage area (9) communicates with a vehicle trunk in which luggage is loaded;

25       - and the vehicle further comprises stop means (90) to stop the modular roof assembly in a substantially horizontal position of the roof parts, thus superposed with respect to each other, the roof parts then clearing an additional available storage space underneath.

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6. Vehicle according to any one of the previous claims characterized in that:

5       - the roof comprises three rigid parts (3, 4, 5) among which a third rigid part (3) is arranged in front of the first front part (4), in the extended position;

      - the second roof rear part (5) comprises a rear window (5a), and

10       - the movement mechanism for these roof parts comprises pivoting arms (40), (50) which are, at one end, hinged with respect to the support body (10), at two different locations, and are connected, at an other end, for one of said arms to the second roof rear part (5) and, for the other, to the first roof front part (4), said other  
15       pivoting arm being connected to slides (12, 13, 14) through a relative sliding movement between the first, front part (4) and the third part (3) of the roof, between the fixed lateral members (81, 83).

20       7. Vehicle according to any one of the previous claims, characterized in that a casing (11) is fixed to the modular roof assembly (1) and houses said roof parts (3, 4, 5) when they reach their said folded position in which they are arranged substantially vertically.

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8. Vehicle according to claim 7 characterized in that:

      - the vehicle is provided with a rear shelf (92) moving between a substantially horizontal position when said roof parts (3), (4), (5) are in their folded position,

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adjacent to each other, and a substantially vertical position, tilted forwards, during extension or folding of said roof parts;

5 - said rear shelf (92) substantially closes the upper part of the casing when it is in its substantially horizontal position and the roof parts are in the folded position inside said housing casing (11).

10 9. Vehicle according to claim 7 or 8 characterized in that at the rear of the vehicle, when the roof parts are in the folded position, the housing casing (11) comprises a movable panel (11c) installed free to pivot at its lower part about a fixed part (11a) connected and fixed to the support body (10) of the modular roof assembly.

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10. Method for fitting equipment on a vehicle according to one of the previous claims, the method comprising the following steps:

20 - supply of the structure (72) comprising lateral edges of a trunk and a windshield frame, between which the lateral members (81, 83) extend;

- supply of the modular roof assembly;

25 - insertion of the modular roof assembly inside the vehicle structure through the rear or the top of the vehicle, through the opening (77) that is located in the roof panel (79) between the two lateral members 81, 83;

- positioning and locking of the support body (10) facing the guiding housing and locking elements (76, 78, 73, 75) provided on the vehicle structure (72);

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- then installation of the vehicle internal trim and seats (7).

11. Method for fitting equipment according to claim  
5 10, characterized in that when the modular roof assembly  
(1) is inserted inside the vehicle, the roof parts (3, 4,  
5) are in their folded position.